

MODULE 5b



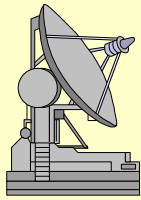
SYSTEM ADMINISTRATION

5.1

**System
Administrator**

5.2

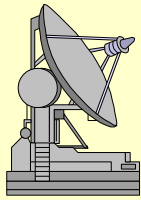
Super-User



MODULE 5b OBJECTIVES



Using the STT training simulator, system manuals, and student workbooks, the student will be able to perform System Administration and Super-User functions.



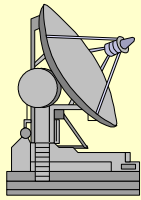
LESSON 5b.1



STT
System Administrator

MODULE 5b

5b-3

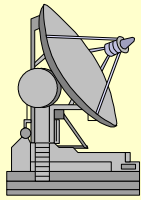


LESSON 5b.1 OVERVIEW



In this section we will cover:

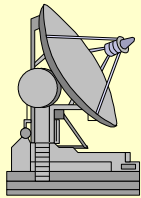
- Software Version
- Loading Data
- Restoring Data
- Ejecting Floppy Disk



LESSON 5b.1 OBJECTIVES



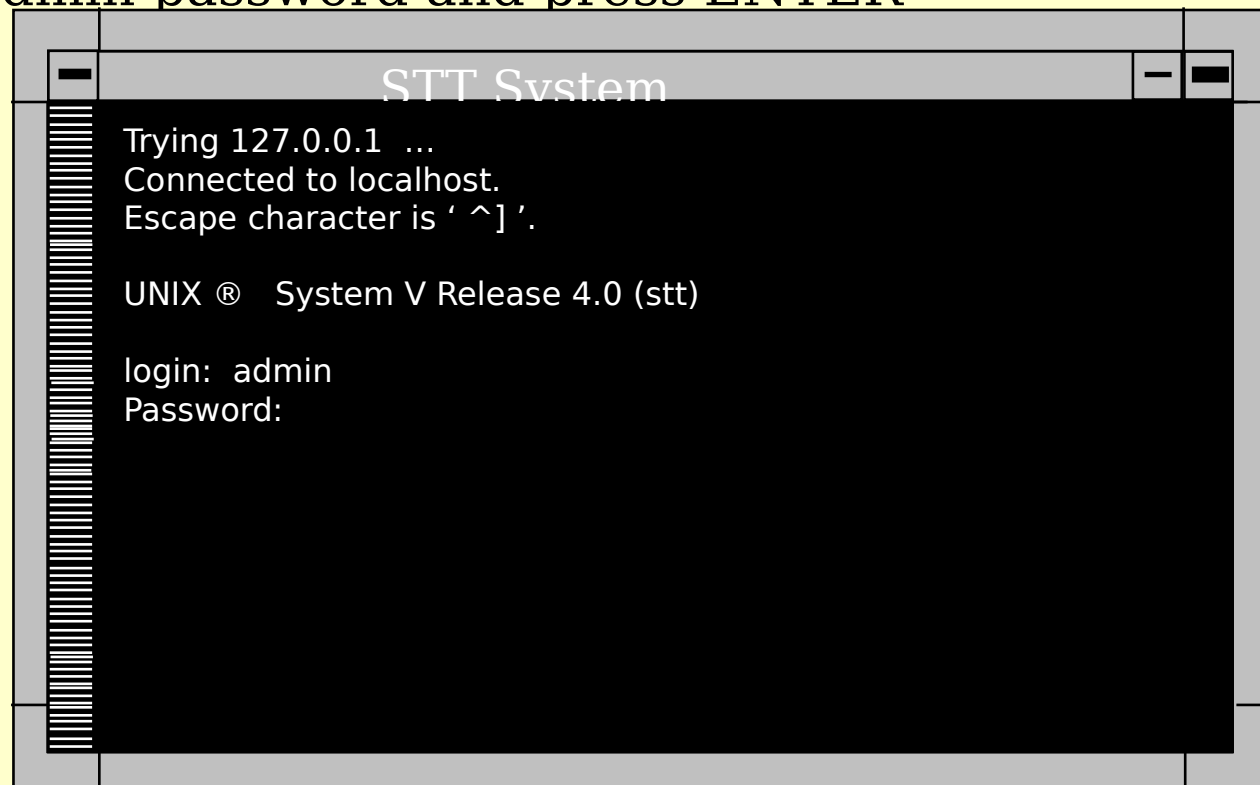
- Using the STT training simulator, system manuals, and student workbooks, the student will be able to:
 - Display the current Software Version
 - Load Data from a floppy disk
 - Restoring Data from a prior load
 - Eject a floppy disk

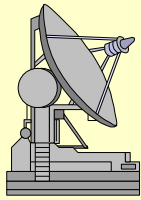


SOFTWARE VERSION



- Log-in as System Administrator
 - Type **admin** and press ENTER
 - Type the admin password and press ENTER





SOFTWARE VERSION



- Type `show_versions` and press ENTER

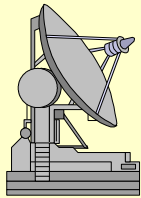
```
STT System
Trying 127.0.0.1 ...
Connected to localhost.
Escape character is '^['.

UNIX ® System V Release 4.0 (stt)

login: admin
Password:

Harris Small Tactical Terminal System

SunOS stt 5.4 Generic_101945-23 sun4m sparc
stt% show_versions
```



SOFTWARE VERSION



■ Type `exit` and press

```
STT System
Trying 127.0.0.1 ...
Connected to localhost.
Escape character is '^]'.

UNIX ® System V Release 4.0 (stt)

login: admin
Password:

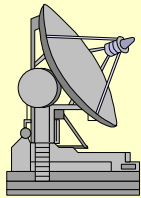
Harris Small Tactical Terminal System

SunOS stt 5.4 Generic_101945-23 sun4m sparc
stt%show_versions

STT Software Version 2.1

Configuration file formats are original format.

stt%
```

LOADING DATA



- Log-in as System Administrator
- Type `load_data` and press ENTER

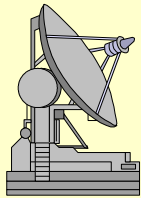
```
STT System
Trying 127.0.0.1 ...
Connected to localhost.
Escape character is '^['.

UNIX ® System V Release 4.0 (stt)

login: admin
Password:

Harris Small Tactical Terminal System

SunOS stt 5.4 Generic_101945-23 sun4m sparc
stt% load_data
Verify that the data disk is inserted in the floppy disk drive.
Hit the return key when ready.
```



LOADING DATA



- Insert Floppy Disk with Data and Press ENTER

```
STT System
.....
=== Installation ===
....
....
=== installation complete ===

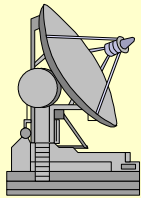
End Update
Wed Oct 29 20:55:53 GMT 1997

=====

Wed Oct 29 20:55:53 1997 ErrorID: 21100
Load data completed successfully.

=====
stt%
```

- Type **exit** and press ENTER
MODULE 5b



LOADING DATA



- If upload fails, obtain another floppy and try again
- If second failure, use T.O.s to troubleshoot system

```
STT System
in the floppy disk drive.
Hit the return key when ready.

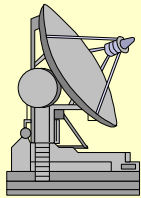
Start Update

Wed Oct 29 17:33:24 GMT 1997

=== Reading new data files ===
/home/stt/bin/msyud_update_data: /dev/rfd0c:
=====

Wed Oct 29 17:35:31 1997 Error ID: 21105
Unable to load data.
Verify media is in the floppy drive and try again.

=====
stt%
```



RESTORING DATA



- Log-in as System Administrator
- Type `restore_data` and press ENTER

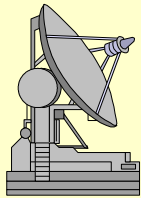
```
STT System
Trying 127.0.0.1 ...
Connected to localhost.
Escape character is '^]'.

UNIX ® System V Release 4.0 (stt)

login: admin
Password:

Harris Small Tactical Terminal System

SunOS stt 5.4 Generic_101945-23 sun4m sparc
stt% restore_data
```



RESTORING DATA



```
STT System
SunOS stt 5.4 Generic_101945-23 sun4m sparc
stt% restore_data

=== Restore ===

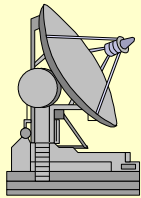
## Restoring files to final location with cp -p: ##
DMSP
.....
=== Restore complete ===

=====

Wed Oct 29 20:59:03 1997 Error ID: 21100
Restore data completed successfully.

=====
stt%
```

- Type **exit** and press ENTER



RESTORING DATA



- If restore fails, attempt another restore
- If second failure, use T.O.s to troubleshoot system

```
STT System
in the floppy disk drive.
Hit the return key when ready.

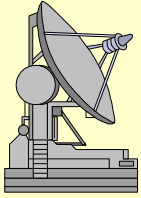
Start Update

Wed Oct 29 17:33:24 GMT 1997

=== Restore ===
Restoring files .....
=====

Wed Oct 29 17:35:31 1997 Error ID: 21105
Unable to restore data.

=====
stt%
```



- Log-in as System Administrator
- Type `eject` and press RETURN

EJECTING FLOPPY



- Type `exit` and press RETURN

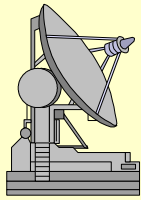
```
STT System
Trying 127.0.0.1 ...
Connected to localhost.
Escape character is '^]'.

UNIX ® System V Release 4.0 (stt)

login: admin
Password:
Last login: Wed Oct 29 17:32:44 from localhost

Harris Small Tactical Terminal System

SunOS stt 5.4 Generic_101945-23 sun4m sparcc
stt% eject
stt%
```

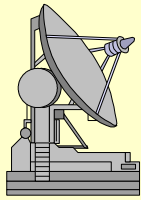


LESSON 5b.1 REVIEW



In this section we covered:

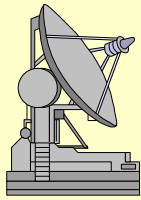
- Software Version
- Loading Data
- Restoring Data
- Ejecting Floppy Disk



LESSON 5b.2



STT
Super-User

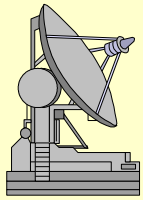


LESSON 5b.2 OVERVIEW



In this section we will cover:

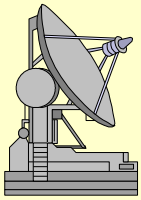
- Root Log-in
- Network Configuration
- Changing Passwords
- Verifying System Configuration Files
- Restoring System Configuration Files



LESSON 5b.2 OBJECTIVES



- Using the STT training simulator, system manuals, and student workbooks, the student will be able to:
 - Log-in as super-user
 - Manipulate and save network configuration files
 - Change system passwords
 - Verify system configuration files written to a floppy disk
 - Restore system configuration from tape or floppy



ROOT LOG-IN

- Log-in as System Administrator
- Type **su -** and press RETURN
- Type the superuser password and press RETURN



```
STT System

UNIX ®  System V Release 4.0 (stt)

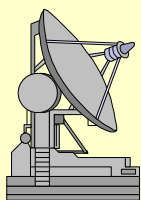
login: admin
Password:

Harris Small Tactical Terminal System

SunOS stt 5.4 Generic_101945-23 sun4m sparc
stt% su -
Password:

Harris Small Tactical Terminal System

You have new mail.
stt#
```



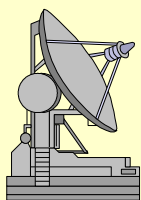
NETWORK CONFIGURATION



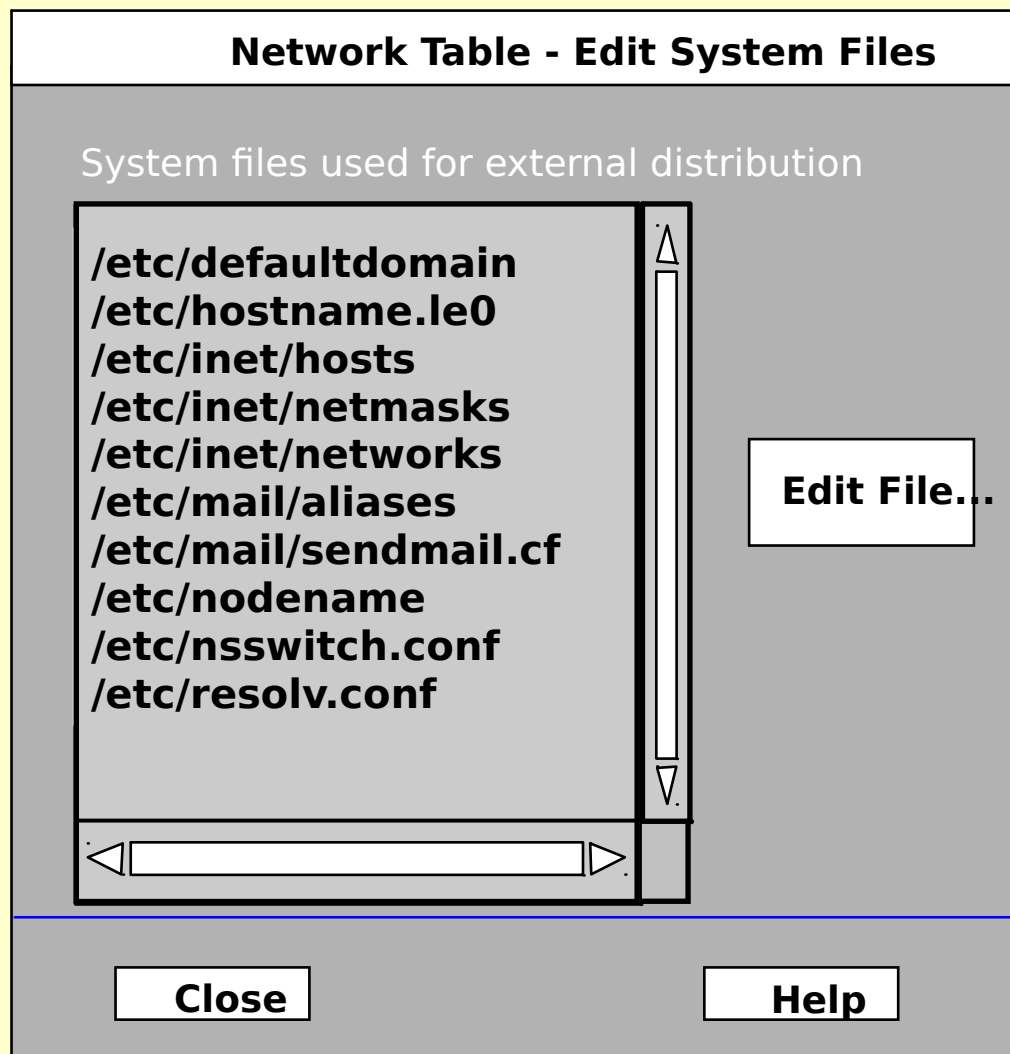
- Type **network** and press RETURN

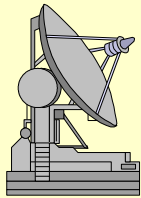
- Select "Edit System Files ..."

External Systems Network Table	
Weather System	
<div>CWS IMETS TAWDS</div>	External Distribution ◆ On ◆ Off
Network Information for Remote Weather System	
Host ID	<div><div></div><div></div></div> <div>View IP Address . . .</div>
Directory	<div>/dmsp</div> <div></div>
<div><div>Apply</div><div>Reset</div></div>	
<div><div>Close</div><div>Edit System Files . . .</div><div>Help</div></div>	



NETWORK CONFIGURATION

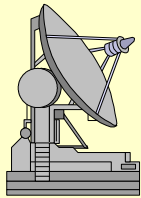




NETWORK CONFIGURATION

etc/hostname.le0 file



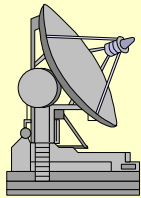


NETWORK CONFIGURATION

etc/inet/hosts file



```
Text Editor V3.4 - hosts, dir:/etc/inet
File View Edit Find
#
# Host names
#
# If the NIS
#
#
#
127.0.0.1      localhost loghost (now blank)
#
# Add IMETS, TAWDS, CWS machines after the STT system.
# No STT IP address provided at ship time: add it in below.
#
106.206.0.9      stt
106.206.0.10    warrior
```

NETWORK CONFIGURATION

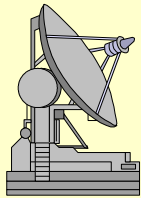
etc/inet/netmasks file



```
Text Editor V3.4 - netmasks, dir:/etc/inet

File View Edit Find

#
# The netmasks file associates Internet Protocol (IP) address
# masks with IP network numbers.
#
#      network-number    netmask
#
# Both the network-number and the netmasks are specified in
# "decimal dot" notation, e.g:
#
#      128.32.0.0 255.255.255.0
#
106.206.0.0 255.255.255.0
```



CHANGING PASSWORDS



- Type `passwd xxxxxx` and press ENTER (where xxxxxx is the account name: admin, root, config, stt)

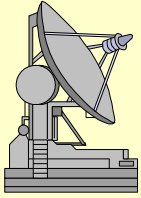
```
STT System
login: admin
Password:

Harris Small Tactical Terminal System

SunOS stt 5.4 Generic_101945-23 sun4m sparc
stt% su -
Password:

Harris Small Tactical Terminal System

You have new mail.
stt# passwd
passwd: Changing password for admin
New password:
Re-enter new password:
stt#
```



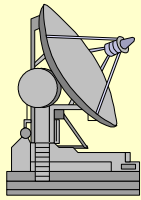
CHANGING PASSWORDS



- New password must be entered twice
- If a mismatch is found between the 2 entries, the password will not be changed

NOTE: ensure password changes are noted, especially for super-user ... once changed, there is no return to root if the superuser pass word is lost

- Once changed, the root prompt is displayed stt#
- exit and return to operations



VERIFYING SYSTEM CONFIGURATION FILES



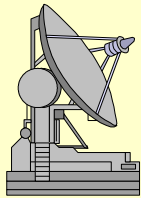
- Used to verify that system unique configuration files were written to a floppy disk.
- After the configuration files were saved to floppy disk. Open the Log/Message viewer by double clicking the Log/Msg icon. Select Status for the Log Type. Scroll down on the Name list to `save_config`. Select it. On the File list select the latest file. Then click on display.
- Output should look similar to this:

`/tmp/os_cpio.Z`

`./home/base/config/saved_version`

`./home/base/config/saved_file_formats`

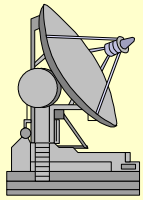
`/tmp/config_cpio.Z`



RESTORING SYSTEM CONFIGURATION FILES



- To restore configuration files, the system **can not** be in operational mode
- Log-out
- Log-in as "Admin"
- Log-in as "Superuser":
 - Enter "restore_config"
 - Enter "tape" or "floppy" depending on your media available
 - Enter "Y" or "N" for restoring network files
- Once restore is complete, log-in as "stt" and resume operations

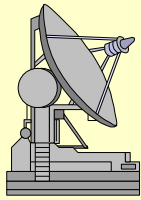


LESSON 5b.2 REVIEW



In this section we covered:

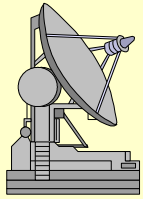
- Root Log-in
- Network Configuration
- Changing Passwords
- Verifying System Configuration Files
- Restoring System Configuration Files



LESSON 5b.3



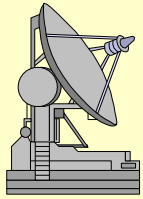
**STT to PC
Connectivity**



LESSON 5b.3 OVERVIEW



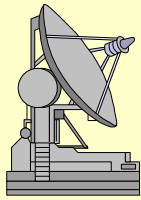
In this section we will cover connecting the STT to a personal computer (PC) for the purpose of transferring images to the PC.



LESSON 5b.3 OBJECTIVE



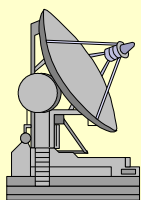
- Using the STT training simulator, a personal computer, and a student workbook, the student will be able to:
 - Identify requirements for connecting the STT to a network
 - Make changes to required networking files
 - Connect the STT to a network or directly to a PC
 - Use File Transfer Protocol (ftp) to transfer an image to the PC



STT NETWORKING ISSUES



- If the STT is being connected to an existing network, the network manager must be contacted to have a security accreditation inspection performed before the STT is connected
- Once the accreditation is performed, the network manager will give you the following information:
 - Internet Protocol (IP) address for the STT
 - Netmask for the network
- If the STT to PC connection is to be separate from any network, the accreditation is not required and you can create your own IP addresses and Netmasks

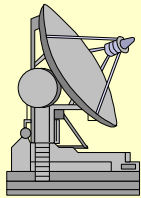


STT TO PC CONNECTIVITY



- On the STT, set-up the */etc/inet/hosts* file as

```
Text Editor V3.4 - hosts,
File View Edit Find
#       w
# Host names
#
# If the NIS ...
#
#
#
127.0.0.1      localhost loghost
#
#Add IMETS, TAWDS, and CWS machines after the STT
system.
#No STT IP address provided at ship time: add it in below.
#
106.206.0.9    stt
106.206.0.10   pc
```



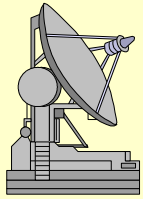
STT TO PC CONNECTIVITY



- On the STT, set-up the */etc/inet/netmasks* file as

```
Text Editor V3.4 - hosts,
File View Edit Find .et

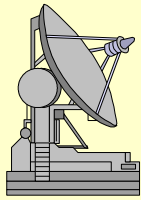
#
# The netmasks file associates Internet Protocol (IP) address
# masks with IP network numbers.
#
#      network-number    netmask
#
# Both the network-number and the netmasks are specified in
# "decimal dot" notation, e.g:
#
#      128.32.0.0 255.255.255.0
#
106.206.0.0 255.255.255.0
```



STT TO PC CONNECTIVITY



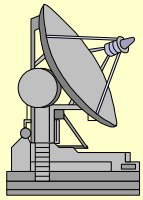
- Once changes are made to the hosts and netmask file and changes are saved, shutdown the STT through the STT root menu
- Connect the STT to the network
- Power up the STT
- Log in as a stt user



STT TO PC CONNECTIVITY



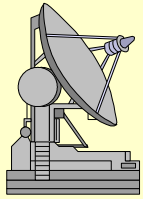
- Following the STT to PC Connectivity handout, configure Network files on the PC and reboot the PC
- Check network connectivity by using the ping command
- Mail the desired image from the STT using the filename image.tif
- From the PC, FTP the image to the PC
- To make the transfer of images from the STT to a PC easier, download the freeware program WS_FTP95, which is found at:
<http://www.csra.net/junodj/wsftp.htm>
- Use a program that can view .tif files, such as Paint Shop Pro, to view the image



MODULE 5b.3 REVIEW



- REVIEW
- QUESTIONS?



MODULE 5b REVIEW



- STT to PC Connectivity
- QUESTIONS??